Price Creek Watershed Project
435 N. Highland Street
PO Box 210
Williamsburg, IA 52361

Phone: 319-668-2359 Williamsburg
319-472-2161 Vinton
E-mail: james.martin@ia.nacdnet.net

Volume 1, Issue 2

September 2008

Price Creek Watershed Project

A joint project of the Iowa and Benton County Soil & Water Conservation Districts

Price Creek Watershed Project Holds Successful Pasture Walk

In July, landowners and operators were invited to attend the first Pasture Walk of the Price Creek watershed project.

In addition to conservation agency staff, over twenty-five landowners and producers attended the event located between Norway and Amana on a farm owned / operated by John Schulte.

John's philosophy is to keep it simple. Over the last year he worked diligently to create a system that addressed his goals of renovating an overgrazed pasture, turning it into a rotational grazing system. With EQIP and matching watershed funds, John was able to take advantage of the 75% cost-share program to repair washout areas, interseed with legumes, installed a well, water line, tire waterer, and divided into seven paddocks.

This project helped make progress toward two goals in the watershed; reducing livestock access to the creek by 50% and reducing nutrient loading on 1,500 acres within the watershed.

NRCS and ISU-Ext. would be happy to work with you on a plan of options to improve your grazing system. Feel free to contact us.

Thanks to the Schulte family, Iowa State Extension, NRCS and the Iowa County Cattlemen for making this event a success.

Landowners, farm operators and agency staff listen intently as producer John Schulte discusses the goals and objectives on his farm. John recently installed a well, water line, paddock fencing and legume interseeding on a farm in the Price Creek Watershed.

Funding for this project has been provided by the Iowa Department of Natural Resources through a grant from the U.S. Environmental Protection Agency under the Federal Nonpoint Source Management Program (Section 319 of the Clean Water Act), The Iowa Department of Agriculture's Water Protection and Watershed Protection Funds, and the Iowa Watershed Improvement Fund administered by the Iowa Watershed Improvement Review Board. Technical Assistance is being provided by the USDA's Natural Resources Conservation Service.

Fast Facts:

- According to the Iowa 2008 Flood Damage Survey; 55% of grassed waterways, 83% of Terraces, and 90% of dry-ponds operated properly. **Conservation pays!**
- For every 1 degree increase in air temp. there is a 4.8% increase in stream use by cattle. (J. Russell, ISU)
- Of the 605 impaired streams listed on Iowa's 2006 water quality assessment, 20% were impaired by causes unknown, 17% - habitat alterations, 13% - low oxygen, 11% - siltation, 11% pathogens, 15% - nutrients & 13% - other. (IDNR)

Inside this issue:

Emergency Conservation Program Deadline Approaching

Iowa and Benton Counties are eligible for ECP funding. **Signup ends September 15, 2008.**

The Farm Service Agency's (FSA) Emergency Conservation Program (ECP) provides emergency funding and technical assistance for farmers to rehabilitate farmland damaged by natural disasters.

75% Cost-share is available to repair structures and waterways back to pre-storm conditions.

Two common questions producers have are; Do I have to repair to NRCS specifications? And what is the difference between the NRCS cost-share and the ECP from FSA.

The answers are no, you don't have to build to the NRCS specs. and as a disaster aid program in the Farm Bill, ECP is mainly for repairs.

Sheet erosion turning into gully erosion in the absence of a grassed waterway or terrace system. USDA-NRCS photo.

If you have a situation where a full re-work of a grassed waterway and tile is needed or new terraces designed, those are situations that the NRCS programs are geared to.

If you are not sure of where to go, feel free to give us a call and arrange a site visit.

New Pasture Water Management Guides Available Online

A major goal of the watershed project is to reduce livestock access by 50% or 3.5 miles.

In the past our benchmark for achieving livestock exclusion has been to provide cost-share incentives to fence the creek off and the installation of an alternative watering system such as a well.

However new research / guidance from ISU-Ext. has shown both environmental benefits and increased forage utilization from simply providing alternative water and shade sources without the need for fence.

The greatest benefits are reported when locating water more than 700 ft. from the stream. However when locating it only 300 ft. away, studies have demonstrated a 69% reduction in overall stream use including a 40% reduction during the hottest time of the year. The same study observed E. coli loads dropping by 85%.

In the Price Creek Watershed, many of our pastures are narrow and run along the creek for the entire length of the farm. In these cases fence may not be as desirable, however 75% cost-share is available to provide an alternative watering system such as wells or controlled access points along the creek.

The ISU guides are available on the internet at: http://www.iowabeefcenter.org/content/research_projects.html

For more information please contact James Martin at 319-668-2359 or Denise Schwab, ISU extension livestock specialist at 319-642-5504

http://www.iowadnr.gov/water/watershed/pricecreek/

What Stage of Channel Evolution is the Section of Your Part of the Creek In?

Streams are Machines!

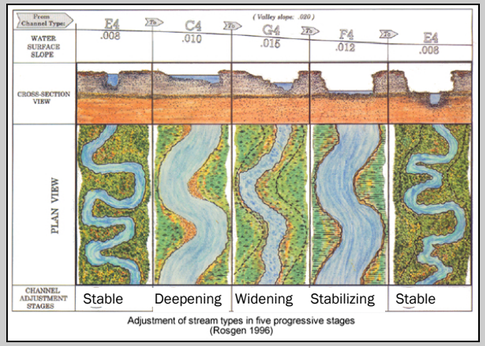


Figure 1

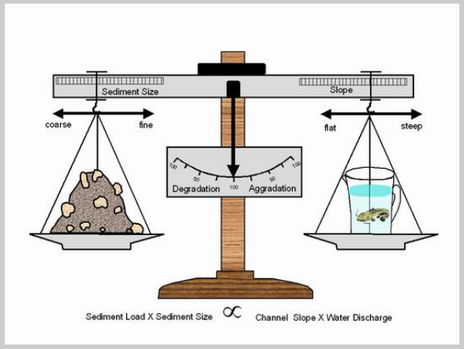
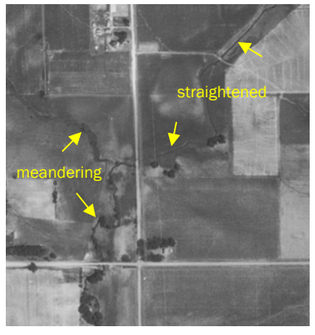


Figure 2

1937 USDA Air Photo, Eastern tributary to Price Creek.



2007 USDA Air Photo, Same location as above.

This year there has been increasing concern over streambank erosion. Most often in situations where an adjacent road bridge is impacted.

When evaluating a creek for stabilization options its important to know what stage in the channel evolution model **(Fig.1)** your segment is in. However it is just as important to understand the stage the creek is in both upstream and downstream of your property.

For example if we stabilize one stream segment with rip-rap and the segment on the downstream property is still in the deepening phase, the stabilization would be short lived as the downcutting advances upstream, undermining your project.

Streams Seek Balance (fig.2)

Making a change in one segment will affect both upstream and downstream. It's a creek fundamental, the balance between the energy in the water and the sediment in the channel. For example, when a creek is straightened it becomes faster and steeper which means more power to chew a deeper channel before returning to equilibrium. It would also stand to reason that if you reduce erosion on the hills in the watershed then more sediment will be removed from within the streambed itself as the water in the channel always seeks to maximize its load potential.

Clear as mud?

Its hard to fight nature, but the NRCS has design specifications that can repair and mimic a stable stream corridor. A combination of filter strips, reshaping the banks and installing a series of riffle pools (like rock crossings) at calculated intervals can heal a deepening or widening segment.

Cost-Share is available

If you have concerns, feel free to contact us for a site visit and determination of eligibility for 75% cost-share.

A sign of a previous deepening phase, too much energy and too far to reach the flood plain (crop ground). Bank erosion allows the creek to create a new & lower flood plain. Over time erosion will end as the creek is allowed to dissipate energy during heavy rains much quicker.
USDA-NRCS Photo

Expiring CRP ? - Conservation Planning Options from Cows to ~~Plows~~ No-Till

In the past year, we have seen many acres of CRP returning to row crop production. **For producers interested in maintaining the environmental benefits of grass, the CRP to Grazing program is a great new financial incentive.**

Sept 30 is the signup deadline for CRP expiring in 2008.

It will continue in 2009 and intended to offer producers an opportunity to install practices such as **fence, watering systems, ponds, and interseeding** before the CRP contract expires. In addition to up to 75% cost-share for these practices, producers can get:

$25/acre/year for 3 years on a 2-4 paddock system or $40/acre/year for 3 years on a system with 5 or more paddocks.

For producers planning to convert CRP to row crops, your first step is to document your intensions with NRCS.

This involves a conservation plan that maintains a soil loss of no greater than 5 tons/acre/yr. To achieve the magic 5 ton limit, you generally either go 100% no-till in the crop rotation or leave some existing sod as contour grass buffer strips.

The **contour grass strips can be re-enrolled into CRP** at a higher rate (approx $150/ac/yr.). To enroll the grass strips, sign-up at FSA no later than Sept of the year your contract expires.

The CRP to grazing program can provide cost share for watering systems and fence.
USDA-NRCS photo

Tips for No-tilling into CRP Ground

by Darrell Bruggink, CTIC. Edited by James Martin

The first impulse of many growers may be to plow under Conservation Reserve Program (CRP) ground when converting it back into cropland. While there is a dense network of fibrous material beneath the soil surface, what really gets the attention of producers is the "low-flying jungle" in plain view, says researcher John Baker.

The main consideration when no-tilling crops directly into CRP are coping with the weeds, legumes and possible pests without either blocking the machine or destroying all the good biological things that have happened to the soil while in CRP the past decade.

"The worst possible thing that can be done to CRP is to till it," he says.

Instead...

1. Cut and harvest grass.
2. Kill with herbicide.
3. Avoid Cereals in yr. 1.
4. Decomposing biomass will lock up large quantities of soil nitrogen after spraying. Add nitrogen when planting.
5. Avoid broadcasting fertilizer.
6. Select openers carefully. Most disc-type openers are likely to hairpin in heavy residue. Horizontal slots such as found on cross slot openers work well.
7. The weed seed bank is vast. Don't wait too long to plant after spraying.
8. Plant later, choosing a later-maturing hybrid or variety. Dead sod may prevent soil from drying or warming.

Corn planted into sod residue.
USDA-NRCS Photo